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VARIEZE FULL SCALE MODEL TESTED IN THE 30- by 60-FOOT TUNNEL

This unusual canard (tail-first) configuration underwent a two month testing period in 1981 in Langley's 30- by 60-Foot Tunnel. NASA was studying incorporation of flight safety into lightplanes through the use of canards and other aerodynamic devices. In this full-scale "VariEze," part of the area normally reserved for a second seat and baggage is occupied by a large electric motor installed for test purposes. The tests were part of extensive tunnel and flight tests that documented the energy efficiency of laminar flow on the Burt Rutan design.

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Built to test full-scale models or actual aircraft, the 30- by 60-Foot Tunnel was an innovative concept in wind tunnel design. It proved especially valuable during World War II as a majority of the nation's bombers and fighters (as well as several foreign aircraft) were tested in this tunnel. Since the 1970s, one of the unique test techniques used in the "30- by 60" was free-flight of dynamically scaled models in the test section. This technique allowed researchers to measure and assess flight characteristics as well as control options. The "30- by 60" is an example of a major facility adapted to serve a multitude of uses not originally visualized.

The "30 by 60" remained as one of NASA's largest wind tunnels until is closing in September 1995. In 1985 the 30-by 60-Foot Tunnel was designated a National Historic Landmark.

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